

I claim:

1. An optimal stiffness matching structure of planar bearing and axis of a rotary mechanism comprising a planar bearing and an axis, said planar bearing and said axis being matched with different materials, said planar bearing being

5 made of one of metal alloy and ceramic, said axis being made of the other one of metal alloy and ceramic.

2. The optimal stiffness matching structure of planar bearing and axis of a rotary mechanism as claimed in claim 1, wherein the ceramic means oxide, carbide, or nitride.

10 3. The optimal stiffness matching structure of planar bearing and axis of a rotary mechanism as claimed in claim 1, wherein the metal alloy is formed by mixing different metals or coating different metals on a substrate surface and then hardening them.